

WE CLAIM:

- 1 1. A wet granulation method for preparing a stable gabapentin tablet, the wet
2 granulation method comprising:
3 forming a mixture by dry mixing of a first portion of a binder with the gabapentin,
4 one or more excipients, or a combination of the gabapentin and the one or more excipients;
5 and
6 adding a second portion of the binder to the mixture, wherein the second portion of
7 the binder is in the form of a solution or dispersion.
- 1 2. The wet granulation method of claim 1, further comprising mixing the second
2 portion of the binder with the mixture to form granules.
- 1 3. The wet granulation method of claim 2, further comprising drying the
2 granules.
- 1 4. The wet granulation method of claim 3, further comprising mixing one or
2 more excipients with the granules.
- 1 5. The wet granulation method of claim 3, further comprising compressing into
2 tablets.
- 1 6. The wet granulation method of claim 5, wherein the tablets have a lactam
2 content less than 0.1% by weight of gabapentin after one month of storage at 40°C and 75%
3 humidity.
- 1 7. The wet granulation method of claim 5, wherein the tablets have a lactam
2 content less than 0.2% by weight of gabapentin after two months of storage at 40°C and 75%
3 humidity.
- 1 8. The wet granulation method of claim 5, wherein the tablets have a lactam
2 content less than 0.4% by weight of gabapentin after three months of storage at 40°C and
3 75% humidity.

1 9. The wet granulation method of claim 8, wherein the tablets have a lactam
2 content less than about 0.2% by weight of gabapentin after three months of storage at 40°C
3 and 75% humidity

1 10. The wet granulation method of claim 1, wherein the binder solution or
2 dispersion is prepared in water alone or in a mixture of water with one or more of ethanol,
3 isopropyl alcohol, and acetone.

1 11. The wet granulation method of claim 10, wherein the binder solution or
2 dispersion is prepared in water.

1 12. The wet granulation method of claim 10 wherein the binder solution or
2 dispersion is prepared in a mixture of water and ethanol.

1 13. The wet granulation method of claim 1, wherein the ratio of drug to binder is
2 between about 1:0.01 and about 1: 1.

1 14. The wet granulation method of claim 1, wherein the wherein the binder
2 comprises one or more of hydroxypropyl cellulose, hydroxypropyl methylcellulose,
3 polyvinylpyrrolidone, copolyvidone, and sugars.

1 15. The wet granulation method of claim 14, wherein the binder comprises
2 hydroxypropyl cellulose.

1 16. The wet granulation method of claim 14, wherein the binder comprises
2 copolyvidone.

1 17. The wet granulation method of claim 1, wherein gabapentin comprises the free
2 base hydrated form, a monohydrate, or other pharmaceutically acceptable salt thereof.

1 18 The wet granulation method of claim 1, wherein the gabapentin has an anion
2 of the mineral acid at about 100 ppm or less as calculated by chloride content.

1 19. The wet granulation method of claim 18, wherein the anion of the mineral acid
2 is between about 20 and about 100 ppm.

1 20. The wet granulation method of claim 1, wherein the excipients comprise one
2 or more of disintegrants, fillers, stabilizers, lubricants, colorants, flavors, and glidants.

1 21. The wet granulation method of claim 4, wherein the excipients comprise one
2 or more of disintegrants, fillers, stabilizers, lubricants, colorants, flavors, and glidants.

1 22. The wet granulation method of claim 20, wherein the disintegrant comprises
2 one or more of microcrystalline cellulose, sodium starch glycolate, crosslinked carboxy
3 methylcellulose, and crospovidone.

1 23. The wet granulation method of claim 20, wherein the disintegrant comprises
2 between about 0.5% w/w and about 15% w/w of the tablet.

1 24. The wet granulation method of claim 20, wherein the disintegrant comprises
2 crospovidone.

1 25. The wet granulation method of claim 20, wherein the filler comprises one or
2 more of lactose, microcrystalline cellulose, mannitol, and dicalcium phosphate.

1 26. The wet granulation method of claim 20, wherein the stabilizer comprises one
2 or more of poloxamer, cremophor, anionic surfactants, cationic surfactants, and nonionic
3 surfactants.

1 27. The wet granulation method of claim 20, wherein the stabilizer comprises
2 between about 0.1%w/w to about 10% w/w of the tablet.

1 28. The wet granulation method of claim 20, wherein the lubricant comprises one
2 or more of magnesium stearate, stearic acid, and stearyl fumarate.

1 29. The wet granulation method of claim 5, further comprising coating the tablet.

1 30. The wet granulation method of claim 29, wherein the coating comprises one or
2 more of a hydrophilic polymer, hydroxypropyl cellulose, hydroxypropyl methylcellulose,
3 polyvinyl pyrrolidone, and polyvinyl alcohol.

1 31. The wet granulation method of claim 29, wherein the coated tablet has a
2 friability of less than 1% w/w.

1 32. The wet granulation method of claim 29, wherein the coated tablet has an
2 initial friability of less than about 0.1% w/w.

1 33. The wet granulation method of claim 29, wherein the uncoated tablet has a
2 hardness of between about 10 Kp to about 30 Kp.

1 34. The wet granulation method of claim 29, wherein the uncoated tablet has an
2 initial hardness of between about 20 Kp and about 25 Kp.

1 35. A gabapentin tablet formed by wet granulation, the gabapentin tablets having a
2 lactam content of less than 0.4% by weight of gabapentin after three months of storage at
3 40°C and 75% humidity.

1 36. The gabapentin tablet of claim 35, wherein the wet granulation comprises
2 forming a mixture by dry mixing of a first portion of a binder with the gabapentin, one or
3 more excipients, or a combination of the gabapentin and the one or more excipients; and
4 adding a second portion of the binder to the mixture, wherein the second portion of the binder
5 is in the form of a solution or dispersion.

1 37. A method of one or more of treating epilepsy, treating neuropathic pain;
2 providing an anticonvulsant therapy, treating post poliomyelitis pain, treating amyotrophic
3 lateral sclerosis, controlling rapid cycling and mixed bipolar states, treating the pain of
4 diabetic neuropathy, and as a prophylactic agent for patients with migraine headaches, the
5 method comprising providing a gabapentin tablet prepared by wet granulation.

1 38. The method of claim 37, wherein the wet granulation comprises forming a
2 mixture by dry mixing of a first portion of a binder with the gabapentin, one or more
3 excipients, or a combination of the gabapentin and the one or more excipients; and adding a

4 second portion of the binder to the mixture, wherein the second portion of the binder is in the
5 form of a solution or dispersion.

1 39. The method of claim 37, wherein the gabapentin tablets have a lactam content
2 of less than 0.4% by weight of gabapentin after three months of storage at 40°C and 75%
3 humidity.